

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	Charles R. WEIRAUCH	§	Confirmation No.:	4096
Serial No.:	10/618,115	§	Group Art Unit:	2627
Filed:	July 10, 2003	§	Examiner:	T. A. Goma
For:	Optical Storage Medium With Optically Detectable Marks	§	Docket No.:	200311928-1

**REPLY BRIEF**

**Mail Stop Appeal Brief – Patents**  
Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Date: October 14, 2009

Sir:

In response to the Examiner's Answer dated August 14, 2009, Appellant submits this Reply Brief.

**I. RESPONSE TO ARGUMENTS OF THE EXAMINER'S ANSWER**

**A. Claims 30-32**

**1. "Arbitrarily located" is not anywhere on the disc**

The Answer takes the position that the environmental load area in Kondo's first embodiment is outside the data area.<sup>1</sup> The position of the Answer is in direct contravention to the teachings of Kondo:

[A] part of the main information area 2 in the information recording surface is reduced and a part of the reduced area can be provided for an area of recording the environmental load information. In other words, **an area for environmental load information can be provided in the main information area 2 arbitrarily.**<sup>2</sup>

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<sup>1</sup> Answer Page 10, paragraph spanning pages 10 and 11.

<sup>2</sup> Kondo Col. 9, lines 28-33 (emphasis added).

The fact that environmental load information is written to the main information area does not change the nature of the area to which the information is written – in the first embodiment of Kondo the environmental load information is in the main information area.

The Answer attempts to buttress the position regarding the environmental load information being somewhere other than the main information area in the first embodiment of Kondo by stating, “Kondo discloses that the environmental load information area 101 can be ‘arbitrarily located’ or formed on any area of the disc (col. 9 lines 51-54).”<sup>3</sup> However, the teaching regarding “arbitrarily located” is not as broad as the Answer suggests. The portion of Kondo relied upon actually only teaches that the environmental load information can be placed anywhere in the main information area, preferably at the end of the main information area just before the lead-out area 4.

In a case of recording the environmental load information mentioned above on such the optical disk 100, the recording area 101 for environmental load information can be arbitrarily provided on the optical disk 100. However, it is desired to provide the recording area 101 in an ending area of the main information area 102 preceding the lead-out area 4 as shown in FIG. 3 for convenience.<sup>4</sup>

Thus, the cited location teaches only that the environmental load information may be placed anywhere within the main information area – not anywhere on the disk.

**2. The claimed “data area” is not defined by the information placed therein**

The position of the Answer is that “the ‘data area’ of Kondo is the area of the main information area which does not include the environmental load information 101.”<sup>5</sup> Appellant respectfully traverses. The Answer is attempting to differentiate the main information area of the disc based on the type data written.

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<sup>3</sup> Answer Page 10, paragraph spanning pages 10 and 11.

<sup>4</sup> Kondo Col. 9, lines 51-55.

<sup>5</sup> Answer Page 10, paragraph spanning pages 10 and 11.

However, environmental load information written to the main information area does not change the status of the main information area as the data area for claim 30 purposes. Thus, Kondo's first embodiment fails to expressly or inherently teach "a data area configured to store data in a binary format along circular tracks; [and] a plurality of optically detectable marks ... **outside the data area.**"

**3. The pickup units cannot read outside the main information area**

Next the Answer indicates that, "[A]ppellant contends that the DVD apparatus of Kondo and the HD DVD apparatus of Kondo use the same wavelength, and are therefore not different optical pickup units."<sup>6</sup> The Answer misses the point. Even if hypothetically the DVD and HD DVD systems represent different pickup units (which Appellant does not admit), the point is **both units can focus on the main information area of Kondo and read the information written in the main information area, but there is no indication that either pickup unit can read outside the main information area.**

If the recording area 101 is recorded with a DVD signal, for example, the environmental load information can be reproduced by a DVD reproducing apparatus as well as a reproducing apparatus for a high density optical disk utilizing a light source of 350 to 550 nm for reproduction. Accordingly, such the environmental load information can be widely utilized although a reproducing apparatus for a high density optical disk is not commonly available.

The Answer then goes further to say:

[The Kondo disclosure] explicitly discusses recording the environmental load information with a DVD apparatus, such that it can be read by both the DVD apparatus and an HD-DVD apparatus, even in the case when the "data area" of the disc is recorded using an HD-DVD apparatus.<sup>8</sup>

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<sup>6</sup> Answer Page 11, paragraph spanning pages 11 and 12.

<sup>7</sup> Kondo Col. 11, lines 8-15.

<sup>8</sup> Answer Page 12, first full paragraph.

However, the area of the disc which the DVD apparatus and HD-DVD apparatus read is the main information area (*i.e.*, the data area). Representative claim 30 is expressly directed to “optically detectable marks outside the data area.” Substituting Kondo’s terminology, representative claim 30 is directed to optically detectable marks outside the main information area.

**4. The engraving area of Kondo’s fifth embodiment is not readable by the system that reads the data area**

With respect to Kondo’s fifth embodiment, again the Answer attempts to prove an immaterial point. In particular, the Answer strays off into whether Kondo discloses the marks in the engraving area of the fifth embodiment are only readable visibly, and an “inherent reproducing apparatus to read the marks.”<sup>9</sup> Even if hypothetically it is assumed the Answer is correct regarding visibly reading and an inherent apparatus to read (which Appellant does not admit), the Answer still fails to evidence that the marks in the engraving area of Kondo could be readable by the same apparatus that reads the main information area. Thus, the Answer relies on the marks in the engraving area for the claimed “optically detectable marks … at least partially around the central aperture, the plurality of optically detectable marks outside the data area,” but fails to show that the marks in the engraving area of the fifth embodiment of Kondo can be read by “an optical pickup unit configured to read data area.”

**B. Claims 1-18 and 27-29**

**1. The Answer is misleading as the Appellant’s argument**

In rejecting representative claim 12, the Answer admits that Satoh fails to teach marks that are readable by different optical systems, and then states, “In the same field of endeavor, Kondo discloses providing marks on a disc which are readable by different optical systems configured for different types of optical

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<sup>9</sup> Answer Page 12, paragraph spanning pages 12 and 13.

storage media (col. 18, lines 24-30).<sup>10</sup> Kondo's column 18, lines 24-30 are directed to Kondo's ninth embodiment as shown in Kondo's Figure 11. With respect to the ninth embodiment Kondo expressly discusses reading the two-dimensional bar code without rotating the optical disk.<sup>11</sup>

The Answer states, "Nowhere does the Kondo reference limit the reproduction of the marks such that the disc is not rotated during the reproducing as asserted by appellant."<sup>12</sup> Appellant was specifically addressing Kondo's ninth embodiment shown in Figure 12, the embodiment expressly relied upon by the Answer in formulating the rejection. Addressing the specific rejection of the Answer does not equate to an assertion regarding overall teaching of Kondo as the Answer attempts to assert.

**2. The combination of Satoh and Kondo still fail to teach the claim limitations**

The Appellant argues in the Appeal Brief that even if hypothetically Satoh and Kondo are considered together (and again which Appellant does not admit is proper), Satoh and Kondo still fail to teach the claim limitations. In particular, one having ordinary skill in the art would only consider that the environmental load information could be included on a disc that also has the index marks of Satoh, not that the index marks used to identify a point on the disc as the starting point of rotation should be modified based on environmental load information. The Answer presents an argument regarding what would have been suggested by the two pieces of art,<sup>13</sup> alleging, apparently, that the index marks of Satoh could contain the environmental load information of Kondo.

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<sup>10</sup> Answer Page 7, first full paragraph.

<sup>11</sup> Kondo Col. 18, lines 24-30.

<sup>12</sup> Answer Page 13, first full paragraph.

<sup>13</sup> Answer Page 14, first full paragraph.

Again Appellant respectfully traverses. One having ordinary skill would not consider having the index marks themselves encode environmental load information. Firstly, the marks-as-environmental load information would vary disc-to-disc, based on the specific properties of the disc, making a consistent detection mechanism difficult. More importantly, Kondo's fifth embodiment (the embodiment most closely related to Satoh's index mark) expressly teaches using the unused portion surface proximate the center hole.<sup>14</sup> Each embodiment of Kondo clearly teaches the environmental load information should stand alone (e.g., on an unused portion of the disc in the fifth embodiment), not as dual function data. Further still, an index mark may be needed separate and apart from the environmental load information to indicate at what point the on the disc to start reading the environmental load information (just like an index mark is needed with respect to the main information area of Satoh).

### 3. Satoh fails to teach the “largest expected focus spot”

With respect to claim 15, the Answer indicates:

Satoh's marks are a solution to the problem which was previously faced by using marks that required a tiny optical spot in order to focus. The relevant portion which is relied upon is a discussion of the problem of having to use a tiny optical spot in the previous systems due to the formation of the marks. The Satoh system solves this problem by providing marks that are sufficiently spaced, such that a tiny optical spot is not required to focus on the marks (col. 2 lines 46-51).<sup>15</sup>

Even if hypothetically everything the Answer states is true (which Appellant does not admit), the response fails to overcome the shortcoming of Satoh (and thus the rejection over Satoh and Kondo). Claim 15 is directed to “the optically detectable marks comprising the band are spaced sufficiently far apart to be detectable by

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<sup>14</sup> Kondo Col. 13, lines 63-67; Figure 6.

<sup>15</sup> Answer page 14, second full paragraph.

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an optical system achieving a predetermined largest expected focus spot." Satoh fails to speak to marks spaced considering "a predetermined largest expected focus spot."

**II. CONCLUSION**

It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), are hereby authorized to be charged to Hewlett-Packard Development Company's Deposit Account No. 08-2025.

Respectfully submitted,

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